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Timmermans

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[54] **METHOD AND APPARATUS FOR
COMPRESSING A STENT PRIOR TO
INSERTION**

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[52] **U.S. Cl.:** **140/89; 623/1**

[58] **Field of Search** **29/227; 140/89;
606/198; 623/1**

[56] **References Cited**

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[57] **ABSTRACT**

A method is disclosed for compressing a helically coiled stent by folding coils about a first plane and a second

plane, each plane containing the longitudinal axis of the stent and the first plane being normal to the second plane, and maintaining separation between individual coils of the stent while folding. Apparatus for performing the compression includes a first pair of combs that engage the coils of the stent at diametrically opposed sides at points lying on a first plane that extends through the longitudinal axis of the stent. A second pair of combs engage the coils at diametrically opposed sides at points lying on a second plane that also extends through the stent longitudinal axis but is normal to the first plane. The first pair of combs are mounted on a track that permits them to be moved relative to the second pair of combs along the stent longitudinal axis. The combs in each pair are joined together through parallelogram linkages which permit them to be moved toward or away from one another over a fixed distance. Each comb has locking rakes located on each of its sides and the comb is movable relative to the rakes. This allows the pins of the combs to be aligned with the teeth of the locking rakes to insert the coils of the stent and then to be urged away from one another to lock the coils therebetween.

10 Claims, 6 Drawing Sheets

